

The product name and sample number for each product evaluated is set forth in Table X.

TABLE X

SAMPLE	COMMERCIAL NAME	SUPPLIER
Ex. 1	Present Invention	Abbott Laboratories
A	Vivonex Pediatric	Sandoz Nutrition Company
B	Neocate	SHS
C	Neocate One +	SHS
D	Elemental 028	SHS

All samples were supplied as unflavored powders and were reconstituted with water as shown in Table XI.

TABLE XI

SAMPLE	WT. OF POWDER	WT. OF WATER
Ex. 1	354 g	1301 g
A	194 g	594 g
B	342 g	1420 g
C	100 g	340 g
D	200 g	674 g

Fifty-one (51) volunteers were recruited to evaluate the relative acceptability of a formula according to this invention compared to the 4 commercially available elemental medical foods. The procedure for this organoleptic evaluation consisted of providing a sample of the inventive formula to each evaluator, having them taste it and then comparing the taste of the 4 commercial formulas to the taste of the inventive formula. Each sample was evaluated at 24° C. and evaluated with the following scale:

9 = Extremely better than Ex. 1	4 = Slightly worse than Ex. 1
8 = Very much better than Ex. 1	3 = Moderately worse than Ex. 1
7 = Moderately better than Ex. 1	2 = Very much worse than Ex. 1
6 = Slightly better than Ex. 1	1 = Extremely worse than Ex. 1
5 = Neither better nor worse than Ex. 1	

The raw data from each evaluator was collected. Means, standard deviations and p-values were calculated. Significance was determined at the 95% Confidence Level, Turkey Criteria. Comparison of Ex. 1 was considered significant if the p-value was <0.0125, using Bonferroni Criteria. The results of this organoleptic test are set forth in Table XII.

TABLE XII

SAMPLE	MEAN	STATISTICAL GROUP	P < or > 5
A	2.63	C	0.0000
B	4.16	B	0.0000
C	5.08	A	0.6623
D	5.06	A	0.7433

Samples which share a letter under the heading Statistical Group are not significantly different. From the data presented in Table IX, it is evident that commercial products A and B were significantly worse than Ex. 1. Thus, the formula according to this invention provides an elemental medical food that possesses highly acceptable flavor.

Industrial Applicability

This invention provides a palatable, hypoallergenic/elemental product for the nutritional maintenance of humans that suffer from protein allergies. The medical community is constantly in search of improved formulations for their

patients that supply a complete diet in a pleasant tasting matrix. As demonstrated in the examples, the formula in accordance with the present invention is easily manufactured and provides acceptable growth and tolerance to patients consuming same.

The embodiments of the present invention may, of course, be carried out in other specific ways than those set forth herein without departing from the spirit and essential characteristics of the invention. The present embodiments are therefore, to be considered in all respects as illustrated and not restrictive.

We claim:

1. A nutritionally complete elemental medical food suitable for use as the sole source of nutrition for a human comprising:

a) a carbohydrate component which comprises from 38 to 56% of the total Caloric content of said food;

b) a lipid component which comprises from 38 to 50% of the total Caloric content of said food and in which said lipid component comprises, based upon the weight of the lipid component, 35 to 43% high-oleic safflower oil, 28 to 35% fractionated coconut oil, 0.5 to 8% esterified glycerols, and 24 to 30% soy oil;

c) a blend of free L-amino acids which comprises from 10 to 20% of the total Caloric content of said food and wherein said amino acid blend comprises, the following essential amino acids; L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-threonine, L-tryptophan, and L-valine;

d) meets the recommended dietary allowances for a 1 to 3 year old child in a minimum of 1000 kilo calories;

e) based upon the weight of the elemental food comprises less than 50 ppm of L-glutamic acid and less than 50 ppm of L-aspartic acid, and;

f) based upon the weight of the amino acid blend comprises at least 8.37 wt. % L-asparagine and at least 10.6 wt % L-glutamine.

2. The elemental medical food according to claim 1 wherein said amino acid component comprises, based upon the weight of the amino acid component: 2.3 to 3.2 wt % -L-histidine; 5.9 to 8.5 wt % -L-isoleucine; 9.5 to 14.0 wt % -L-leucine; 6.6 to 9.7 wt % -L-valine; 5.2 to 7.6 wt % -L-lysine; 2.2 to 3.2 wt % -L-methionine; 4.9 to 7.1 wt % -L-phenylalanine; 3.8 to 5.7 wt % -L-threonine; 1.4 to 2.2 wt % -L-tryptophan; 3.0 to 4.2 wt % -L-alanine; 5.3 to 7.7 wt % -L-arginine; 8.6 to 12.4% L-asparagine monohydrate; 1.1 to 1.9% -L-cystine dihydrochloride; 11.0 to 15.8 wt % -L-glutamine; 2.3 to 3.2 wt % -glycine; 3.0 to 4.1 wt % L-proline; 3.0 to 4.2 wt % -L-serine; and 5.0 to 7.1 wt % -L-tyrosine.

3. The elemental food according to claim 1 in which said essential amino acids are present in the following amounts, based on the weight of the amino acid blend, at least 2.2 wt. % L-histidine, at least 5.72 wt. % L-isoleucine, at least 9.25 wt. % L-leucine, at least 5.17 wt. % L-lysine, at least 2.15 wt. % L-methionine, at least 4.79 wt. % L-phenylalanine, at least 3.8 wt. % threonine, at least 1.49 wt. % tryptophan, and at least 6.55 wt. % L-valine.

4. The elemental medical food according to claim 1 wherein said carbohydrate component consists essentially of corn syrup solids with a DE of 23 or less.

5. The elemental food according to claim 1 in which said lipid component comprises from 38 to 46% of the total caloric content of said food.

6. The elemental medical food according to claim 1 which is in powder form.